

Figure 3. Georgia NRCS IPM Standard Jobsheet, October 2016. (Source 2014 NRCS Agronomy Technical Note 9, Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinator Using IPM and Other Conservation Practices, pg. 9.)

IPM techniques for reducing pesticide environmental risk					
IPM techniques ¹	Mitigation index value ⁴ (by pesticide loss pathway)				Function and performance criteria
	Leaching	Solution runoff	Adsorbed runoff	Drift	
Application timing—ambient temperature				5	<ul style="list-style-type: none"> Reduces exposure—spraying during cooler temperatures (e.g., early morning, evening or at night) can help reduce drift losses Avoid spraying in temperatures above 90 °F
Application timing—rain	15	15	15	15	<ul style="list-style-type: none"> Reduces exposure—delaying application when significant rainfall events are forecast that could produce substantial leaching or runoff can reduce pesticide transport to ground and surface water Reduces exposure—spraying when there is higher relative humidity reduces evaporation of water from spray droplets thus reducing drift losses Reduces exposure—delaying application when wind speed is not optimal can reduce pesticide drift Optimal spray conditions for reducing drift occur when the air is slightly unstable with a very mild, steady wind between 2 and 9 miles per hour Reduces exposure—specific pesticide formulations and/or adjuvants can increase efficacy and allow lower application rates; drift retardant adjuvants can reduce pesticide spray drift Reduces exposure—reduces the amount of pesticide applied with preventative treatments because applications are based on monitoring that determines when a pest population exceeds a previously determined economic threshold Reduces exposure—spot treatment, banding and directed spraying reduces amount of pesticide applied Assumes less than 50 percent of the area is treated Reduces exposure—using smart sprayer technology (i.e., green sensors, sonar-based sensors, GPS-based variable rate application, computer controlled spray nozzles, etc.) can substantially reduce the amount of pesticide applied Reduces exposure—reduces overall amount of pesticide applied; reduces offsite pesticide drift Assumes that the setbacks with no application are at least 30 feet wide Reduces exposure—reduces solution and adsorbed runoff losses, but potentially increases leaching losses, especially for low K_{oc} pesticides Applicable to shallow mechanical or irrigation incorporation Not applicable if pesticide leaching to groundwater is an identified natural resource concern Not applicable if soil erosion is not adequately managed
Application timing—relative humidity				5	
Application timing—wind				10	
Formulations and adjuvants ^{2,3}	5	5	5	5	
Monitoring + economic pest thresholds	15	15	15	15	
Partial treatment	15	15	15	10	
Precision application using smart sprayers	10	10	10	10	
Setbacks	5	5	5	10	
Soil incorporation ^{2,3}		15	15		